STCG TANK SUBGROUP MEETING MINUTES

November 12, 1997

Welcome/Introductions (Cathy Louie)

Cathy opened the meeting and asked for introductions around the table. Dirk Dunning mentioned that since Ralph Patt is retiring from the Oregon Office of Energy on December 31, Dirk will have to start attending the HAB Subcommittee meetings. The full HAB meetings and the Vadose Zone Partnering meetings could also cause schedule conflicts. It was recommended that we change the Tank Subgroup meetings to the second Tuesday of each month.

Loni Peurrung summarized the recent EMAB Science Committee workshop to review the EM Science Program (EMSP). Their objective was to make sure EMSP projects are responsive to the DOE sites' science needs. PNNL and INEL projects were used as case studies for this workshop. The workshop participants also discussed the science and technology (S&T) continuum and whether DOE cleanup problems are defined adequately.

Subgroup Member Survey Key Responses (Tom Tebb)

Tom suggested that the Subgroup tackle the following issues from the survey responses at a future meeting:

1. Identify some of the bigger technology-related problems facing TWRS in the context of our STCG charter.
2. Take more ownership of our products (e.g., technology needs); don't just pass through the FDH products.
3. How is the STCG output used? The STCG seems to be "playing second fiddle" to the Site's Integrated Priority List. Our activities are redundant to what's happening in other forums.
4. The Subgroup needs to link up with the TWRS mid-level logic.

Barbara Harper stated that focusing 80% on technology needs and 20% on science needs is not adequate. She favors more emphasis on science needs. Tom noted that in the past, there has been too much focus on doing science and getting beautiful results rather than doing actual cleanup work. Barbara thinks there is a gap; something is missing to link S&T with cleanup endpoints. Dirk stated that we need the science projects to study things that will be important in the future (e.g., chemical/physical properties and movement of plutonium and other actinides in soils).

Endorsement of FY98 Tank Science Needs (Loni Peurrung)

Loni mentioned that she has started to do a crosswalk of science projects funded versus our science needs, but she isn't finished yet. EMAB said that EMSP projects are not applied science and do not have to be tied directly to specific site needs. EMSP is trying to develop linkages now. Ecology wants to ensure that EMSP is focused on Hanford's science needs, or pull the EMSP dollars for relevant technology work.

The Subgroup decided to make Marv Weiss and Gary Ballew voting members. The voting members reviewed the eight new science needs and determined if they were high-, medium-, or low-priority, or if they should be deleted from the package. Then they endorsed the needs package for presentation to the STCG Management Council and subsequent transmittal to EMSP.

Tank Subgroup FY97 Annual Report

The Subgroup reviewed the strawman FY97 Annual Report and made suggestions for improvement. The final version that was presented to the STCG Management Council by Cathy is attached.

Tank Subgroup FY98 Work Plan

The Subgroup reviewed the strawman FY98 Work Plan and made suggestions for improvement. The final version that was presented to the STCG Management Council by Cathy is attached.

An issue was raised for the Subgroup to elevate to the Management Council with a request that they pass it on to the HAB. The issue is that we need to know the endstate of the 200 Area, since it will determine what our real S&T needs are. It will also tell TWRS what their performance requirements should be.

The Subgroup will try to identify some reports or recommendations we can write to have an impact.

The Subgroup will ask Tom Anderson for a list of technologies that were funded in FY97.

The TFA MYWP will be posted this week on the TFA homepage at the following address: http://em-52.em.die.gov/ifd/tanks/tanks.htm.

The EMSP web site address is: http://www.em.doe.gov/science.

Action Items

1. Change meetings to the second Tuesday of each month in the afternoon (facilitator).
2. Send anonymous comments on the vadose zone tank technology needs to the Subgroup (facilitator).
3. Update list of Subgroup voting members to include Gary Ballew and Marv Weiss (facilitator).
4. Identify some TWRS field trip opportunities (Cathy Louie).

Meeting Attendees

Gary Ballew (Pacific Rim Enterprise Center)
Dirk Dunning (Oregon Office of Energy)
Don Engelman (NHC)
Linda Fassbender (PNNL)
Tom Frater (FDH)
Marcus Glasper (DOE-RL)
Barbara Harper (Yakama Indian Nation)
Cathy Louie (DOE-RL/TWRS)
Vince Panesko (Pacific Rim Enterprise Center)
Loni Peurrung (PNNL)
Mike Powell (PNNL)
Tom Tebb (Ecology)
Marv Weiss (CLN)

Next Meeting

The next Tank Subgroup meeting will be held on December 9, from 1:00 to 5:00 p.m., in the ISB-1 White Bluffs Room. The following future agenda items have been identified:

- results from the member survey
- identification of TWRS technology-related problems to be addressed by the Subgroup

TANK SUBGROUP FY97 ANNUAL REPORT TO THE STCG MANAGEMENT COUNCIL

November 19, 1997

During FY97, the Tank Subgroup focused their attention on the following key topics: 1) closure and retrieval performance criteria (i.e., the Hanford Tanks Initiative), 2) tank integrity and leak detection technology, 3) performance assessment, including vadose zone characterization/monitoring needs and the Hanford barrier, and 4) the TWRS level-zero logic and mid-level logic for Low-Activity Waste and High-Level Waste Programs. The Subgroup also had the following accomplishments, listed below the related STCG Mission Statement elements.

MISSION STATEMENT - Element 1

Function by involving user organizations (both DOE and the contractors), technology providers, regulators, American Indian Tribes, and stakeholders, and promoting broad information exchange among all interested parties. Maintain a helpful attitude and serve as a conscience for technology improvement at Hanford. Contribute to DOE-wide communications and lessons learned.

Tank Subgroup Accomplishments

- Members gave presentations at the National Academy of Sciences (NAS) review of the STCG Technology Needs Prioritization Process in January 1997.

- Members participated in a TFA/CLN/STCG Retreat in May 1997 to advise TFA of stakeholder concerns and to revise TFA's stakeholder involvement plan.

- Subgroup Leads distributed a survey to the members requesting feedback on how to improve the meetings and increase the level of participation.

MISSION STATEMENT - Element 2

Identify, prioritize using systems analysis, and seek consensus on Hanford Site and program-specific problems, science and technology needs, and requirements. Recognize baseline schedule insertion points for technology. Focus on the baseline, but also identify technologies to support potential baseline alternatives if they offer risk reduction benefits or high financial return on investment by improvements in environmental, safety, or health protection. Devote 20% of the STCG effort to science needs and 80% to technology needs and deployment.

Tank Subgroup Accomplishments

- Prepared and endorsed the package of FY97 technology needs that were submitted to the Tank Focus Area (TFA).

- Prepared and endorsed the package of FY97 science needs that were submitted to the Environmental Management Science Program (EMSP).

- Prepared and endorsed the package of FY98 technology needs that will soon be submitted to TFA.

- Began reviewing the package of FY98 science needs that will soon be submitted to EMSP.

- Members participated in a joint meeting with the Subcon Subgroup on vadose zone characterization and long-life waste isolation surface barrier technologies.

- Continued discussions on suggested improvements to the technology needs generation process.

MISSION STATEMENT - Element 3

Be a forum for assessing and recommending potential technologies for application at Hanford. Look for technologies that provide improved endstates, effectiveness, improved schedules, or improved costs in accomplishing the required results. Also look for technologies to reduce surveillance and maintenance costs while maintaining safe operations. Focus on life-cycle costs and benefits; improvements in environmental, safety, or health protection; and improvements in performance, pollution prevention, and waste minimization relative to alternative remedies. Make appropriate referrals for vendors (e.g., to DOE or the contractors).

Tank Subgroup Accomplishments

- Endorsed the Electrical Resistance Tomography proposal that was jointly prepared by TWRS and RCRA Groundwater Monitoring for vadose zone monitoring in a tank farm for submittal to the TDI Program. It was not funded by TDI, however it initiated discussions between the Tank and Subcon Subgroups. Joint technology needs were submitted by the two Subgroups.

- Tank and Subcon Subgroup members participated in a Horizontal Drilling Technology Workshop with private vendors interested in vadose zone characterization.

- Reviewed and endorsed seven tank technology deployment proposals for submittal to the TDI Program. The Slurry Monitoring Technology proposal was the only Hanford TDI proposal to be awarded funding.

- Reviewed the Technology Linkage Tables and provided input to EM-50.

- Reviewed an EMSP proposal titled "Models to Predict Flow Behavior of Radioactive Particulate Wastes". The consensus was that the Subgroup does not want to endorse science proposals, but does want to offer technical input offline.

- Requested a presentation on K-Basin Sludge and Fuel Technology Options to get a better understanding of FDH's recommendation of sludge disposal through TWRS vitrification and the technology implications of this option.

- Heard presentations to develop a better understanding of the TWRS level-zero logic and mid-level logic for Low-Activity Waste and High-Level Waste Programs prior to beginning the technology needs assessment process.

MISSION STATEMENT - Element 4

Champion and facilitate demonstration and deployment of innovative, modified, or existing technologies that are new to Hanford and share information with other sites to best leverage all available resources.

Tank Subgroup Accomplishments

- Actively monitored waste retrieval technologies developed at Hanford (e.g., confined sluicing end effectors) being successfully deployed at Oak Ridge.

- Reviewed a series of Technology Demonstration/Deployment Fact Sheets and provided comments to FDH.

MISSION STATEMENT - Element 5

Foster technology pull from the DOE-RL and contractor line project customers and eliminate barriers (e.g., "not invented here", resistance to change).

Tank Subgroup Accomplishments

- Subgroup Lead added words to the TWRS Multi-Year Work Plan stating that technology needs must be integrated into the Program to confirm user

commitment to implement technology solutions that meet the performance requirements in the needs statements.

MISSION STATEMENT - Element 6

Promote competitive privatization and commercialization by communicating information on Hanford's science and technology needs and schedule insertion points, as well as demonstration and deployment opportunities, to commercial technology providers. Help break barriers to involvement by companies new to Hanford.

Tank Subgroup Accomplishments

- The Pacific Rim Enterprise Center distributed Hanford technology needs through the World Wide Web, the Northwest Environmental Business Council, and Trade Shows.

MISSION STATEMENT - Element 7

Provide input to decision-makers (e.g., DOE-RL, DOE-HQ, Congress, heads of regulatory agencies) on Hanford's highest-priority science and technology needs to ensure critical needs are funded. Also, provide feedback to them on the Site's accomplishments.

Tank Subgroup Accomplishments

- Subgroup members maintained a dialogue with the TWRS Program and TFA regarding how our high-priority technology needs are being addressed. Periodic technology status reports were given to the Management Council (e.g., on the Hanford Tanks Initiative). A science and technology needs assessment process timeline was developed which includes feedback loops between TFA and the Subgroup.

- Provided feedback to TFA on its project to develop a risk-based approach to technology investments.

- Members provided input to EM-50 for Congressman Bliley's investigation.

TANK SUBGROUP FY98 WORK PLAN

November 19, 1997

During FY98, the Tank Subgroup will fulfill the roles and responsibilities assigned by the Management Council. The Subgroup plans to accomplish the following:

MISSION STATEMENT - Element 1

Function by involving user organizations (both DOE and the contractors), technology providers, regulators, American Indian Tribes, and stakeholders, and promoting broad information exchange among all interested parties. Maintain a helpful attitude and serve as a conscience for technology improvement at Hanford. Contribute to DOE-wide communications and lessons learned.

Tank Subgroup Plans

- Bring key technology issues/concerns to the Management Council for debate and resolution.

- Invite presentations by TWRS Program staff to identify opportunities where new technology could have a positive impact. In addition, the Subgroup will go out in the field as much as possible to see what's happening in the TWRS Program and find out what their needs are.

- Review representation on the Subgroup and try to increase the level of participation.

MISSION STATEMENT - Element 2

Identify, prioritize using systems analysis, and seek consensus on Hanford Site and program-specific problems, science and technology needs, and requirements. Recognize baseline schedule insertion points for technology. Focus on the baseline, but also identify technologies to support potential baseline alternatives if they offer risk reduction benefits or high financial return on investment by improvements in environmental, safety, or health protection. Devote 20% of the STCG effort to science needs and 80% to technology needs and deployment.

Tank Subgroup Plans

- Endorse the package of FY98 science needs for submittal to the Environmental Management Science Program (EMSP).

- Start the needs process sooner; make it a continuous process.

- Prepare and endorse the package of FY99 technology needs for submittal to the Tanks Focus Area (TFA).

- Prepare and endorse the package of FY99 science needs for submittal to EMSP.

- Do a crosswalk between the tank science needs and the projects funded by EMSP.

- Identify and prioritize key Hanford tank problems related to technology (e.g., vadose zone, tank characterization, DST integrity, safety issues, tank space, MUST problems) for the Subgroup to address in future meetings.

- Review gaps in the existing TWRS baseline, but also consider "blue sky" alternatives that could make quantum leaps over the baseline technology performance.

MISSION STATEMENT - Element 3

Be a forum for assessing and recommending potential technologies for application at Hanford. Look for technologies that provide improved endstates, effectiveness, improved schedules, or improved costs in accomplishing the required results. Also look for technologies to reduce surveillance and maintenance costs while maintaining safe operations. Focus on life-cycle costs and benefits; improvements in environmental, safety, or health protection; and improvements in performance, pollution prevention, and waste minimization relative to alternative remedies. Make appropriate referrals for vendors (e.g., to DOE or the contractors).

Tank Subgroup Plans

- Endorse technology proposals for submittal to TFA, TDI, EMSP, and other potential funding sources.

- Participate in meetings/workshops/peer reviews on tank waste remediation technologies.

- Invite presentations on innovative technologies for tank waste remediation.

- Interface with the Subcon Subgroup on vadose zone technology issues.

- Find out what other STCGs are doing and see what we can do to improve our operations.

MISSION STATEMENT - Element 4

Champion and facilitate demonstration and deployment of innovative, modified, or existing technologies that are new to Hanford and share information with other sites to best leverage all available resources.

Tank Subgroup Plans

- Actively seek out potential improved technologies to address Hanford tank waste remediation problems (e.g., EPA or SDI technologies).

MISSION STATEMENT - Element 5

Foster technology pull from the DOE-RL and contractor line project customers and eliminate barriers (e.g., "not invented here", resistance to change).

Tank Subgroup Plans

- Continue to work with the TWRS Program to ensure that technology needs are integrated into the Program (via the TWRS Multi-Year Work Plan) to confirm user commitment to implement technology solutions that meet the performance requirements in the needs statements.

MISSION STATEMENT - Element 6

Promote competitive privatization and commercialization by communicating information on Hanford's science and technology needs and schedule insertion points, as well as demonstration and deployment opportunities, to commercial technology providers. Help break barriers to involvement by companies new to Hanford.

Tank Subgroup Plans

- The Pacific Rim Enterprise Center will distribute Hanford technology needs through the World Wide Web, the Northwest Environmental Business Council, and Trade Shows.

MISSION STATEMENT - Element 7

Provide input to decision-makers (e.g., DOE-RL, DOE-HQ, Congress, heads of regulatory agencies) on Hanford's highest-priority science and technology needs to ensure critical needs are funded. Also, provide feedback to them on the Site's accomplishments.

Tank Subgroup Plans

- Maintain a dialogue with TFA, private vendors, and other technology providers on how our high-priority technology needs are being addressed and keep the Management Council informed.